

### What They Do

Assay analysts conduct routine qualitative and quantitative analysis of tissue and cell cultures to ensure compliance with specifications. They follow written protocols to run the tests. They also prepare, maintain, and check reagents, cell and tissue cultures, and equipment prior to running tests. They document experimental results and write technical reports using word processing and spreadsheet software. They may help modify assay procedures to run faster and more accurately. They may also help make changes to the manufacturing processes as part of their work.

Assay Analysts must understand quality control systems and scale up, bioreactors, filtration, centrifugation, and other basic cell culture unit operations.

*Assay Analysts in the biotech industry share characteristics of Chemical Technicians and Biological Technicians. Detailed descriptions of these occupations may be found in the Occupational Information Network (O\*NET) at [online.onetcenter.org](http://online.onetcenter.org).*

Important skills, knowledge, and abilities include:

- ▶ Chemistry – Knowledge of the chemical composition, structure, and properties of substances and of the chemical processes and transformations that they undergo. This includes uses of chemicals and their interactions, danger signs, production techniques, and disposal methods.
- ▶ Mathematics – Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
- ▶ Science – Using scientific rules and methods to solve problems.
- ▶ Information Ordering – The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- ▶ Biology – Knowledge of plant and animal organisms, their tissues, cells, functions, interdependencies, and interactions with each other and the environment.
- ▶ Critical Thinking – Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

### Training/Requirements

- ▶ Associate degree or bachelor of science degree.
- ▶ Up to two years of experience in sterile manufacturing environment.

## Assay Analysts

# Biotechnology Careers

### What's the California Job Outlook?

While the Bureau of Labor Statistics does not collect data on Assay Analysts, the occupations listed below are found in the biotechnology industry and have similar duties. The California outlook and wages figures are drawn from all industries and represent occupations comparable to Assay Analysts.

Standard Occupational Classification	Estimated Number of Workers 2002	Estimated Number of Workers 2012	Average Annual Openings	2005 Wage Range (per hour)
<b>Chemical Technicians</b>				
19-4031	5,200	6,100	220	\$13.58 to \$22.95
<b>Biological Technicians</b>				
19-4021	5,800	7,400	260	\$14.15 to \$23.72

*These figures do not include self-employment.*

*Average annual openings include new jobs plus openings due to separations.*

*Source: [www.labormarketinfo.edd.ca.gov](http://www.labormarketinfo.edd.ca.gov), Employment Projections by Occupation and OES Employment & Wages by Occupation, Labor Market Information Division, Employment Development Department.*

### Additional Sources of Information

Association of Analytical Communities  
(800) 379-2622  
[www.aoac.org](http://www.aoac.org)

Occupational Information Network (O\*NET)  
<http://online.onetcenter.org>